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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/652,376 08/31/00 SINHA

A U 012930

000140
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HM12/0925

EXAMINER

KEYS, R

ART UNIT

PAPER NUMBER

1621

DATE MAILED: 09/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/652,376

Applicant(s)

SINHA, ARUN KUMAR

Examiner

Rosalynd Keys

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Status of Claims

1. Claims 1-12 are pending.
Claims 1-7 are rejected.
Claims 8-12 are withdrawn from further consideration.

Election/Restrictions

2. Applicant's election with traverse of Group I, claims 1-7 in Paper No. 6 is acknowledged. The applicants did not present any ground(s) for the traversal. Thus, restriction is maintained for the reasons given in the previous office action.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 8-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

Information Disclosure Statement

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate

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paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

New formal drawings are required in this application because the drawings filed August 31, 2000 have been objected to by the Draftsperson (see attached Form PTO 948). Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the Patent and Trademark Office no longer prepares new drawings.

Claim Objections

- ✓ 5. Claim 1 is objected to because of the following informalities: step (b) of claim 1 is not a grammatically correct. Appropriate correction is required, i.e., correct the last two lines of step (b).

Claim Rejections - 35 USC § 112

- ✓ 6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding claim 7, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devgan and Bokadia (Aust. J. Chem., 1968, 21, 3001-3003).

The instant claims are directed to a process for preparing 1-Propyl-2,4,5-trimethoxybenzene comprising a) providing crude calamus oil or β -asarone in a solvent; b) hydrogenation of the solution in the presence of a catalyst at a pressure of 10-40 psi and a temperature in the range of 15-40°C; c) filtering the catalyst and removing the solvent under reduced pressure in the range of 10-100 mm Hg; and d) subjecting the

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reduced calamus oil to column of silica gel chromatography to obtain the desired product in liquid form with 85-97% purity. The calamus oil used is of the tetraploid or hexaploid origin. The toxicity of the hydrogenated calamus oil is two times less than the starting calamus oil. The reduced calamus oil has a novel honey and roses aroma. The 1-Propyl-2,4,5-trimethoxybenzene obtained has a novel sweet ylang, slightly spicy and fruity aroma. The calamus oil is extracted from asarone rich plants.

Devgan and Bokadia teach a) providing γ -asarone in alcohol; b) hydrogenating the solution in the presence of palladium-charcoal; c) filtering the catalyst off and removing the alcohol under suction; and the residue was chromatographed over neutral alumina and eluted with petroleum. The product obtained was dihydro- γ -asarone. The instant claims differ from Devgan and Bokadia in that they employ γ -asarone instead of β -asarone as the starting material. However, the two starting materials are analogous since they are isomers of one another. One having ordinary skill in the art at the time the invention was made would be motivated to employ the process of Devgan and Bokadia with the expectation of obtaining the desired product because the skilled artisan would have expected the isomeric starting materials to react similarly.

Application of an old process to an analogous starting material to obtain a result consistent with the teachings of the prior art would have been obvious to one having ordinary skill in the art. See In re Durden, 763 F.2d 1405, 226 U.S.P.Q. 359 (Fed. Cir. 1985).

Devgan and Bokadia fail to disclose the toxicity and aroma of the obtained hydrogenated asarone. However, one having ordinary skill in the art would expect the

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hydrogenated asarone to have the claimed characteristics since, a compound and its properties are inseparable. In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963).

Devgan and Bokadia fail to disclose the concentration of catalyst utilized. However, changes in temperature, concentrations, or other process conditions of an old process does not impart patentability unless the recited ranges are critical, i.e., they produce a new and unexpected result. In re Aller et al., (CCPA 1955) 220 F.2d 454, 105 USPQ 233.

Devgan and Bokadia fail to disclose the purity of the obtained dihydro asarone. However, when claiming a purer form of a known compound, it must be demonstrated that the purified material possess properties and utilities not possessed by the unpurified material. Ex parte Reed, 135 U.S.P.Q. 34, 36 (P.O.B.A. 1961), on reconsideration, Ex parte Reed, 135 U.S.P.Q. 105 (P.O.B.A. 1961).

Devgan and Bokadia utilize a different method of chromatography in step d). However, one having ordinary skill in the art would have found it obvious to utilize any known method of chromatography in order to identify the product obtained.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynn Keys whose telephone number is 703-308-4633. The examiner can normally be reached on M-F 5:30 a.m.-10:30 a.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 703-308-4532. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

R. Keys

R. Keys
September 24, 2001

Rosalynd Keys
Rosalynd Keys
Primary Examiner
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